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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,982	04/20/2007	Knut Behnke	N81819LPK	2781
1333 7590 01/02/2009 EASTMAN KODAK COMPANY PATENT LEGAL STAFF 343 STATE STREET ROCHESTER, NY 14650-2201			EXAMINER READY, BRYAN	
			ART UNIT 2852	PAPER NUMBER
			MAIL DATE 01/02/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/586,982

Applicant(s)

BEHNKE ET AL.

Examiner

Bryan P. Ready

Art Unit

2852

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2008.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1.5 and 6 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1.5 and 6 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 20 April 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-8508)
4) ☐ Interview Summary (PTO-413)
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____
Paper No(s)/Mail Date _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Behnke et al. (US 2002/0088799) in view of Ohmichi (US 6,246,860) and Kassen et al. (US 5,369,368).

- a. Behnke et al. disclose (Fig. 3; Abstract) a method for adjusting a fusing device of a digital printing machine (paragraph 8, lines 1-5), comprising the steps of: providing microwave signals of a specific frequency range directed at a printing material (1; see Fig. 3), with an applicator of a measuring device being preheated (*the resonators are pre-heated in that a microwave energy must be supplied before a paper can receive the*

microwave energy during transport through the resonators) for feed-through of the printing material (1) such that a change between the microwave signals reflected by the printing material and the emitted microwave signals is detected, and a water content (humidity) of a printed material as a measurable parameter is acquired to regulate toner fixing (see paragraph 11 and 12).

- b. Behnke et al. differ from the instant claimed invention in not explicitly disclosing the reflected microwave energy is used to determine the humidity of the printing material.
 - c. Ohmichi discloses a method to detect the moisture content of a printing sheet involving measuring the transmission of microwaves through the sheet (col. 8, lines 39-66)
 - d. Kassen et al. disclose (col. 1, lines 10-18) that it is known that microwave transmission or reflection measurements provide a method for determining material parameters, such as water content (humidity).
 - e. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to utilize the detected reflected microwaves, as disclosed by Behnke et al., to determine the water content, or humidity of a printing material, as suggested by Ohmichi and Kassen et al. for the benefit of obtaining data relevant in paper fixing devices (Ohmichi; col. 8, lines 39-66).
4. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being obvious over Behnke et al. (US 2002/0088799) in view of Ohmichi (US 6,246,860) and Kassen et al. (US 5,369,368), and further in view of Behnke et al. (US 2004/0228643)

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

- a. Behnke et al., Ohmichi, and Kassen disclose the elements as outlined in section 3 above. Additionally, Behnke et al. disclose (Fig. 5; paragraph 24) a sensor (pyrometer) measures the temperature of a printing material, and that a fusing result based on the sensor's measurement is evaluated.
- b. Behnke et al., Ohmichi, and Kassen differ from the instant claimed invention in not disclosing the microwave signals reflected by the printing material are used to determine a mass per unit area of a printing material.

- c. Behnke et al. (US 2004/0028643) discloses (paragraph 28) a microwave device for ascertaining paper weight by drawing a conclusion that a particular paper weight is not correct based on the fact that printing media of different paper weights generally have different moisture content, and that the resonance conditions of a microwave mechanism changes based on the differing moisture content.
- d. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to infer paper weight information from humidity data as disclosed by Behnke et al. (US 2004/0028643), and employ this information in the apparatus of Behnke et al. (US 2002/0088799), since as disclosed by Behnke et al. (US 2002/0088799) such data is a desirable measurable parameter in fixing (paragraph 12).

Response to Arguments

5. Applicant's arguments filed 16 October 2008 have been fully considered but they are not persuasive.

Applicants assert that the combined references fail to teach or suggest adjusting a fusing device based on a reflected microwave signals.

In response, Examiner respectfully disagrees. Behnke et al. ('799) clearly discloses reflected microwave energy (energy not absorbed) as a measurable parameter of importance (paragraph 12, lines 11-12). Behnke et al. ('799) does not explicitly state that this measurable parameter is used to determine the humidity of a printed material, however does disclose additional measurable parameters to include weight and water content of the paper (paragraph 12). Examiner asserts that in light of the disclosure of Ohmichi, which suggests determining a moisture content of a printing

sheet by measuring transmitted microwaves, that one of ordinary skill in the art pertaining to microwave material measurements would appreciate that the reflected microwaves of Behnke et al. ('799) would also carry information relating to printing material moisture, and adjust the apparatus of Behnke et al. appropriately to obtain such a measurement.

Examiner has included the disclosure of Kassen et al. as further support that such a modification of Behnke et al. with Ohmichi would have been obvious to one of ordinary skill in the art.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bryan P. Ready whose telephone number is (571) 272-9018. The examiner can normally be reached on Mon.-Fri., 9:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Gray can be reached on (571) 272-2119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David M Gray/
Supervisory Patent Examiner,
Art Unit 2852

BPR